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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/549,418	09/14/2005	Oug-Ki Lee	21CEN-007PUS	6325

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DALY, CROWLEY, MOFFORD & DURKEE, LLP
SUITE 301A
354A TURNPIKE STREET
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EXAMINER	
D'ANIELLO, NICHOLAS P	
ART UNIT	**PAPER NUMBER**
1793	

NOTIFICATION DATE	DELIVERY MODE
08/04/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/549,418	LEE ET AL.	
	Examiner	Art Unit	
	Nicholas P. D'Aniello	1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 June 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1, 3-5 and 7-10* is/are pending in the application.

4a) Of the above claim(s) *7-10* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 3-5* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendments

The amendment filed June 16th 2008 is acknowledged. Claim 1 has been amended, claims 1 and 2-5 remain pending in the application for prosecution. The objection to the drawings has been withdrawn in view of the amendment.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Leong et al (US Patent No. 5,811,751) in view of Kobsa (US Patent No. 6,163,010).

Leong et al. teaches a probe-positioning device consisting of a base machine (10) including a base frame (taken to be a stage unit on a working table) which *supports the probe substrate with a probe site*. Wherein the stage includes a translation stage (12) for X and Y adjustments, cables allowing for rotation of the chuck (16, rotating stage), a microscope mounting bridge (11, first supporting member), a microscope (22) and adjacent to the chuck (16) is a platen (17, second supporting member disposed on the working table) on which to position a plurality of probe heads (18 and 19, probe fixing units on a bracket). A multi-wavelength laser (24) is mounted toward the upper part of the stage unit

on top of the microscope (22, effectively acting as the third supporting member disposed on the working table) (column 5, lines 42-64).

Leong et al. differs from the claimed invention because it does not teach the X, Y, and Z translation stages to be disposed on top of one another however it would have been obvious in the art that these stages could be separate stages on top of each other because Kobsa teaches a similar apparatus where the X-axis positioning stage (34), Y-axis positioning stage (36) and Z-axis positioning stage (38) are disposed on top of each other (column 5, lines 62-64). It would have been obvious to one of ordinary skill in the art that the inclusion of a separate stage for each orthogonal axis would give the user advanced control and precision in the movement of the work piece which is necessary when dealing with micron sized features.

In regard to the amendment, particularly the probe fixing unit gripping and positioning the probe, the apparatus of Leong et al. has probe heads 18, 19 which are coupled to probe arms 20, 21 which extend onto the subject of the probe (probe site of probe substrate) (column 5, lines 54-55) and is therefore taken to embrace this limitation because the probe heads are holding (gripping) the probe arms in a position over the probe substrate, where the probe substrate may be moved to further position the probe arms, this claim does not positively require a probe fixing unit which definitively moves the probe over the probe substrate.

In regard to the microscope being movable disposed, this is taken to be implicit in the operation of a stereomicroscope (such as the Mitutoyo FS-60 taught by the reference, which has focusing controls to move the microscope vertically) (column 5, lines 59-62) because in order to focus a stereo microscope the optical field must be adjusted by **moving** the microscope vertically (z-direction).

3. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leong et al (US Patent No. 5,811,751) and Kobsa (US Patent No. 6,163,010) as applied to claim 1 above, and further in view of Ingle (US Patent No. 4,475,681).

Leong et al. and Kobsa teach a probe positioning and bonding device as applied to claim 1. **Claim 3** differs from the references in calling for a pincette for the holding the probe. However, it would have been obvious in the art to employ a pincette for holding the probe because Ingle teaches a similar wire bonding apparatus where clamping arms (100a and 100b) are provided on a support arm (44, taken to be a bracket) and a wire clamping control solenoid (108) is provided to enable the clamping arms to pivot on an axis normal to the support arm (reciprocating mover) (column 7, lines 33-63). Furthermore, such clamping members would allow for the bonding to be effected with low impact force by selectively gripping the wire and linearly advancing in predetermined sequential and incremental movements during bonding (column 2, lines 42-63).

In regard to **claim 4**, as seen in figures 2-4 of Ingle, the probe fixing unit is disposed on a pivot plate (46, which would be considered the second supporting member in the apparatus of Leong et al.) and a coil compression spring (92) which is able to pivot (slidably move) the support arm (bracket) upwardly (z-direction) relative to the pivot plate (column 7, lines 9-23).

In regard to **claim 5**, the probe fixing unit of Ingle is connected to many adjusting members (control plate 66 and pivot plate 46) which enable it to pivot about the z-axis (pivot axis 72) and about a traverse pivot axis (48, x-direction) (column 6 line 37 - column 7 line 8). A stop screw (110) in the clamping arm (100a) is adjustable to selectively limit the maximum opening between the clamping fingers (column 7, lines 59-64) effectively restricting the open angle of the pincette. Although not explicitly taught, it would have been obvious to one of ordinary skill in the art at the time of invention to employ grooves in the pincette of Ingle to ensure a better grip and avoid crimping and/or damage to the fragile probes.

Response to Arguments

4. Applicant's arguments filed June 16th 2008 have been fully considered but they are not persuasive. .

5. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the microscope and light source are completely independent from each other) are not recited in the rejected claim(s). Although the claims are interpreted in light of the

specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

6. The claimed probe fixing units are taken to be embraced by the teachings of Leong et al., particularly the reference discloses probe heads which are coupled to (gripping) and hold (positioning) probe arms over the subject of the probe (probe substrate) (column 5, lines 54-55), as this claim does not positively require the probe fixing units to move the probe over the substrate, this limitation is taken to be embraced by the probe card in the teachings of Leong et al.

7. In any event, this probe card is capable of being reworked and positioned as evidenced by Krivy (USP 6,023,172) who teaches a similar probe testing device and that it is conventional in the art for a skilled technician to reposition the probe needles 16 of a probe card 10 with tweezers of the like (column 1 line 62 – column 2 line 23).

8. In regard to the microscope being movable, this is taken to be implicit in the operation of a stereo microscope which must move vertically in order to focus an image or a light source passing through the lens. In any event, the microscope is taken to be movably disposed above the stage unit because as noted above the stage unit may move (XYZ stages) and therefore the microscope is movably disposed above the stage because the stage can move in relation to the microscope.

9. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208

USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicholas P. D'Aniello whose telephone number is (571)270-3635. The examiner can normally be reached on Monday through Thursday from 8am to 5pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jessica Ward can be reached on (571) 272-1223. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. P. D./
Examiner, Art Unit 1793
7/21/08

/Jessica L. Ward/
Supervisory Patent Examiner, Art Unit 1793